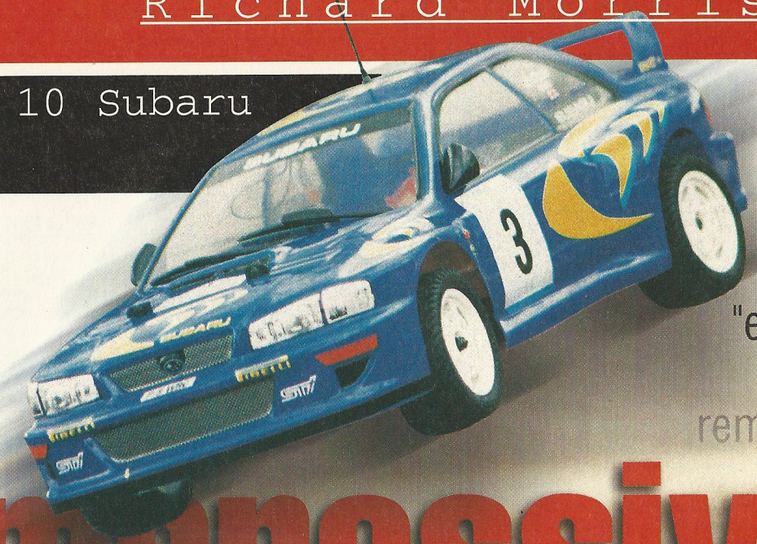
Richard Morris

Kyosho Super 10 Subaru Review

impressive impreza



"everyone who has seen this model has remarked how good it looks"

Before I start this review proper, I feel a few words of introduction would not go amiss. I have been flying model helicopters for more years than I care to remember and have been a regular contributor to Model Helicopter World for about two years, ever since the editor, JT, coerced me into writing for them. So how come a chopper jockey is reviewing a model car? I hear you ask. Well it was around Christmas time, when JT and myself were messing around with a couple of cars because the weather was too bad to go flying. It was during this time, that I mentioned that this was extremely good fun, and I would not mind having a play with a car at some time in the future. My seven year old son James, also thought this was a very good idea. I must confess to being somewhat surprised when a large box turned up on my door step one evening which contained the Kyosho Impreza. So that is how come I ended up reviewing a model car, so lets get started.

(Retribution for helping me try to fly a Helicopter Richard! Ed')

First Impressions

The kit is presented in Kyosho's own very professional manner packaged exactly as we have come to expect, with a photograph of the finished model on the box lid. Inside the box, the pre-assembled chassis is anchored with tie wraps, so that it cannot roll around and damage any other components. All small items requiring assembly are sealed in plastic bags and stored in a box to one side of the chassis, with the body shell placed over the chassis. The instructions and decals contained in a plastic bag, are placed on top of everything else. As I have mentioned the chassis comes ready assembled with the engine, transmission, and steering all ready so all that remains, is the suspension, body mounting points, the installation of the radio equipment and the finishing of the body shell.

Before getting on to the small amount of assembly that is required, a word or two about the car. Power is provided by Kyosho's own 0.12 size engine, complete with recoil starter, driving the rear wheels via a twin shoe centrifugal clutch, through a primary reduction, and through a second reduction in the differential. This compact little power and drive assembly, is mounted on to a composite chassis, with the wheels mounted on independent suspension front and rear. All in all a robust little package, that has become common to most of the cars in this size range

Robust, long travel front suspension

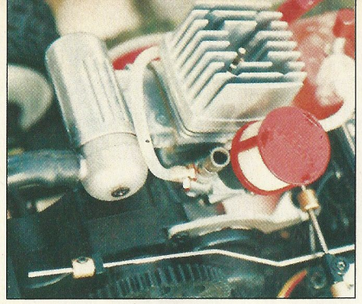
Putting It Together

The first stage in the assembly sequence, is to install the radio; firstly the throttle and brake push rods are bent to shape and cut as required. The throttle push rod is attached to the carburettor lever by means of a 'Z' bend; the brake rod also uses a 'Z' bend, to attach it to the servo output arm. The throttle control rod is connected to the servo by a simple spring mechanism, which allows the servo to over travel the throttle and apply the brake. This is simply a shoe pivoted at one end and brought into contact with the outside of the clutch bell when applied. To ensure the engine does not stop under braking, the throttle stop screw is set so that the throttle barrel does not close completely and an even tickover is maintained.

The servo is mounted using self-tapping screws and cushioned from any vibration using the rubber grommets supplied with the radio equipment. I was surprised to see that the brass ferules supplied with the servo were not made use of, as these are intended to ensure the rubber grommets are not over compressed and therefore work as they are intended. The other surprising thing was to find that the steering servo, as well as not using the ferules, was only secured using two of the four mountings points available. These practices would be frowned upon in helicopter circles, although I am assured that it is fine on this type of car. A servo saver is incorporated in the front of the chassis, and as I have little experience of model cars, as they are these days I continued as stated in the instructions bowing to Kyosho's experience in this field. The battery box was fitted into the mounting provided and the receiver attached on top of it, using the double sided tape provided. The on/off switch was also fitted into the place provided in the chassis. Care will have to be taken when filling the fuel tank, as it would be all to easy to give the receiver a liberal coating of fuel, so maybe a protective cover of some sort would not go a miss.

Next, attention is turned to the assembly of the shock absorbers; care should be taken to ensure that all the component parts are carefully removed from their mouldings. It is particularly important for the spacers that fit between the 'O' ring seals, to be free of any unwanted plastic debris, as this will no doubt lead to leaking shocks. The most awkward stage in building up the shock absorbers, was fitting the 'C' clips, which retain the pistons to their rods. Kyosho supply a couple of extra 'C' clips, so if one springs off never to be seen again, all is not lost. Care must be taken not to damage the rods onto which the pistons have been attached, when the ball joint ends are screwed onto them, as this will also cause the shock absorber to leak. You are advised to wrap the rod with cloth before gripping it with pliers. This seems to work quite well, although care must be taken not to grip the rod too tightly with the pliers. Now for the messy bit, filling the shocks with oil. Ensure the oil is poured slowly so as to avoid air being trapped in it. This takes a little time and you will find plenty of oil is supplied.

With the four shock absorbers now assembled, it is time to fit the springs. The silver ones are for the rear and the black ones for the front. It is possible to adjust the amount of tension on the springs by inserting plastic spacers, which are supplied. I decided to add the smallest pair of spacers to the rear units, but nothing to the front ones. The shock absorbers are now ready to fit to the chassis; they are secured in place by self-tapping screws holding metal bushes. The time has now come to fit the tyres onto the wheel rims; they are retained in place with 'CA' glue. That just leaves the assembly of the body mounting clips and brackets. This is straight forward enough, although I did find it necessary to lower the front body mounting clips one position from where it was suggested in the instructions. This may just be a matter of taste and would be better left until you fit your own shell



The super little .12 engine

Body Building

Moving swiftly on to the body shell. This is where the majority of time building this car is taken. The shell itself is of a clear plastic material and is covered with a protective plastic film; this should remain in place until after the shell has been painted. Cut the excess material from around the body carefully using sharp snips or scissors. I used an extremely sharp scalpel in some places and finished off the cut edges, with a very smooth file, drawn carefully along the edges, making sure not to apply too much pressure. At this point in time, I did not cut out the side windows as indicated in the instructions The necessary holes were then drilled in the shell. Their positions being moulded into the shell by small dimples in the body surface. With the body now cut out and all holes drilled, I washed it thoroughly in warm soapy water, to ensure any mould release agents had been removed. I then applied the pre-cut window masks on the inside of the body. You may find it necessary to make up a solution of water and washing up liquid at a ratio of about 30:1. By coating the windows with this, it will allow you a little slippage when you come to apply the window masks.

You are now ready to paint the body. Kyosho recommend you use their blue paint part No 76354. I was not able to obtain this, so elected to use a Pactra Paint, the colour being Blue Shark, which is a very close match to the car illustrated on the box lid. Whether you choose to use this paint or another colour, you must make sure that it is suitable for use on this type of body shell material. The Pactra Paint is a polycarbonate paint and does give very good results. The body is sprayed on the inside. I found that I had just enough paint in one can, to spray the body and the rear spoiler. The spoiler is sprayed on the outside and lacquered to give it a gloss finish. For this I used an ordinary polyurethane varnish, which gave the desired effect. With the paint applied and dry, it was time to peel off the protective plastic coating to reveal the body in all its glory. Now for the decal sheets. Again I used a solution of washing up liquid and water to allow some movement of the decals once they are in contact with the body. Soft paper towels were used, to remove excess solution and smooth out any air bubbles. The application of the decals takes much longer than you think, but the finished result is well worth the effort. The only thing left to do now, is to bolt on the accessories like wing mirrors, aerial, and windscreen wipers. Now fit the body onto the chassis and make any adjustments to the body mounting points which you think fit. Once this has been done you are ready to go and have some fun.

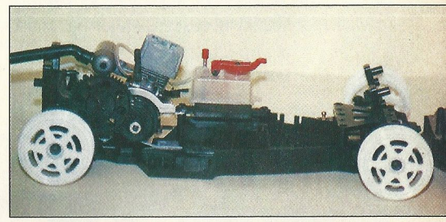
Fun Time

With the radio equipment fully charged, it was off to a quiet car park to see how the little Impreza would go. The tank was filled and the engine pulled over a few times to get some fuel through. The glow was connected and after a few more pulls, the little engine burst into life. As this was the first time the engine had been started, I decided to just run the chassis around for a while to bed things in a bit. The next time the tank was filled and the engine started, a camera was produced, so it was now time to fit the body. The car was run up and down for the necessary photographs. Once these had all been taken it was time to have some fun. The Impreza has a fair turn of speed and can be cornered at full throttle without fear of turning over, on smooth tarmac. I would estimate the top speed to be around twenty miles an hour, although this may well increase once the engine beds in a bit. The silencer is remarkably effective and the car is not noisy, allowing it to be run almost anywhere, without attracting too much attention. The brake is fairly efficient, slowing the car quite quickly, although it has not got the power to lock the wheels too easily. The car is not suited to running over rough terrain, or grass, although you can manage some reasonable slides on wet surfaces.

Conclusions

I am very pleased with the way this model has turned out. It looks the part. Everyone who has seen this model has remarked how good it looks. Whether this is due to the colour scheme, or because they can relate to the rallies it has taken part in, I do not know, but the reaction is very pleasing and makes the work that went into finishing the body shell well worth while. The engine is a real little gem, proving itself to be very reliable and easy to handle. It is proving to have more than adequate power for this model. This car is no doubt aimed at the beginners end of the market and to that end, it meets all the requirements, with an easily understood instruction manual, accompanied by a good assembly drawing, providing all the component numbers should any spares be required. My reservations about the way the servos are mounted, seem to be without foundation, as all is still working perfectly. I have however had a track rod end come adrift whilst running the car. It would appear that these may be sacrificial, should you end up colliding with an immovable object. All in all this little car makes an ideal introduction to the world of radio controlled model cars. Nice one Kyosho. **RRCi**

The chassis as it falls out of the box



Quick Spec

Super 10, Extra large 1:10th scale R/C Model. Powered by .12 size, pull start engine. Supplied assembled requiring 2 channel radio, 2 servos, fuel, glow start and paint to complete.

Testers Kit

HiTec Ranger radio and servos